

### Definition

The patient may complain of external or internal nose disorders. Deformities of normal contour or lesions on the skin of the nose may cause the patient to seek a medical opinion.

Internal nose (nasal cavity) complaints are the most common of all human ills (sinus trouble, hay fever, runny nose, catarrh, postnasal drip, congestion, colds, blockage, and many others).

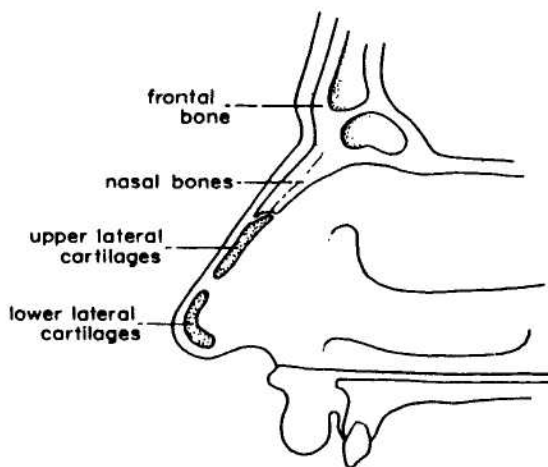
### Technique

#### External

Examine the nose critically by frontal and lateral inspection (Figures 128.1, 128.2). Note the presence of humps, broadness, unusual length, drooping tip, nostril size, distortions, scars, pits, dilated vessels, skin growths, discolorations, depressions of the bridge, or deviations from a symmetrical straight contour. Palpate for the bony and cartilaginous junctions.

#### Internal

The interior nose cannot be evaluated without a nasal speculum and a headlight (Figure 128.3). Proper inspection and evaluation must be practiced on one's fellow students in the clinic. Caudal septal deviations or the presence of exudate or skin excoriations can be determined by careful inspection. The paranasal sinuses (maxillary and frontal) should

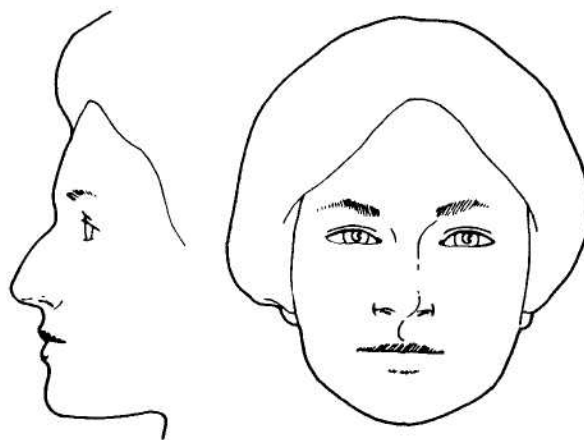


**Figure 128.1**  
Cartilaginous support of the nose that permits mobility and determines contour.

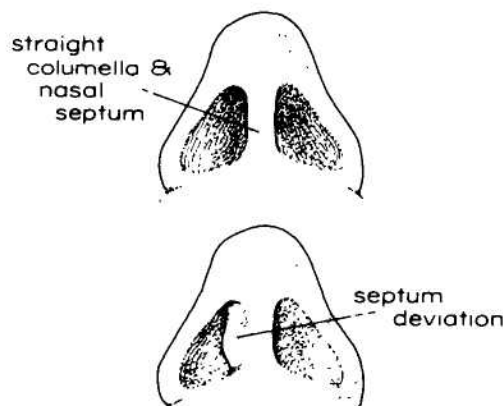
be percussed for tenderness. A dark room should be used to see if they transilluminate light equally well (Figures 128.4, 128.5). Examine one side and then the other.

### Basic Science

The external nose is supported by paired nasal bones, upper lateral and lower lateral cartilages, and the nasal septum. Most of the nasal skeleton is skin, subcutaneous tissue, and cartilage. The nose can therefore sustain frequent minor injuries. The skin of the nose is constantly exposed to actinic effects, and skin neoplasms are common. The internal nose



**Figure 128.2**  
Straight to frontal view but hump to lateral view.



**Figure 128.3**  
Inspection of the nasal septum.



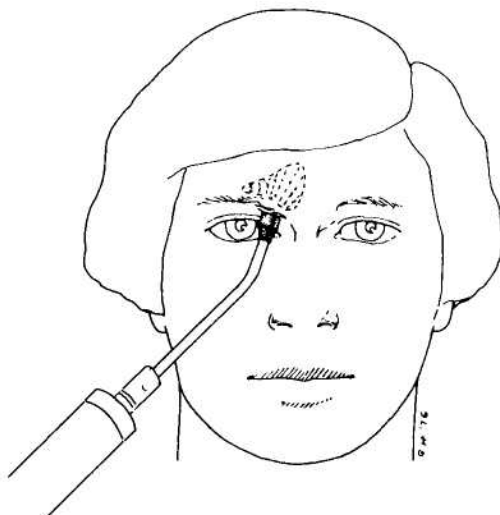
**Figure 128.4**  
Transillumination of the maxillary sinus (in a dark room).

is the air conditioning organ for the body. Normally it purifies, humidifies, and warms or cools the air entering the lungs. Poor nasal breathing leads to mouth breathing with secondary effects on the trachea, bronchi, and lungs. Lysozyme in the nasal mucus is bacteriocidal. Changes in nasal pH lead to decreased lysozyme and ciliary activities with subsequent nasal and sinus infection.

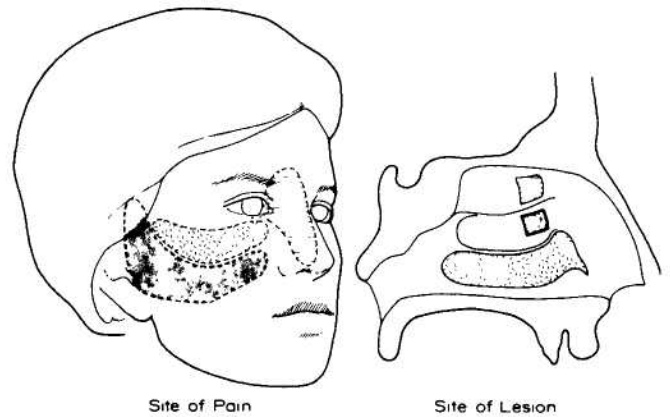
The frontal, maxillary (antral), and ethmoid sinuses on one side all drain into a common sulcus in the middle meatus of the nose (beneath the middle turbinate). This common drainage site leads to contiguous spread of infection, usually beginning in the maxillary and thence to the other two sinus groups.

### Clinical Significance

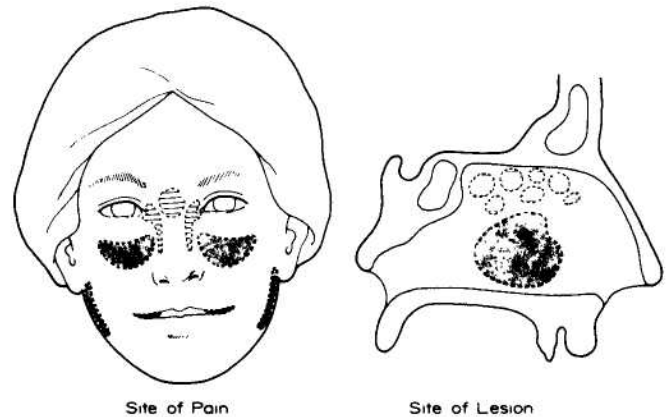
External nose deformities often have significant psychological effects. External deformities often indicate internal nasal deformities, such as a deviated nasal septum. Small skin



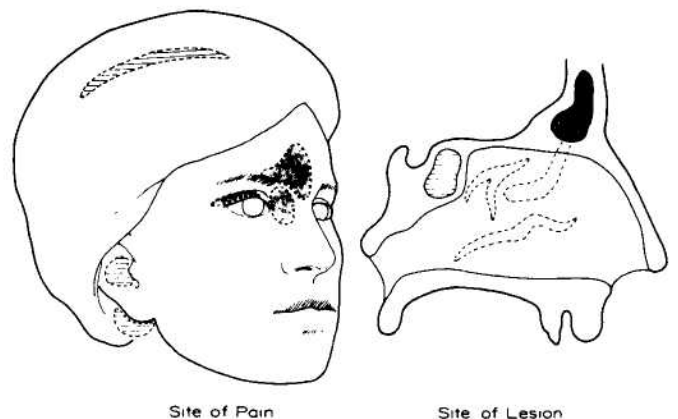
**Figure 128.5**  
Transillumination of the frontal sinus (in a dark room).



**Figure 128.6**  
Pain referral sites from disorders in the nasal cavity (tumor, infection, erosion).



**Figure 128.7**  
Pain referral sites from disorders in the ethmoid (striped) and maxillary (solid) sinuses.



**Figure 128.8**  
Pain referral sites from disorders in the frontal (solid) and sphenoid (striped) sinuses.

cancers on the nose must be identified and removed before serious invasion occurs.

The cause of nasal congestion, drainage, pain, bleeding, or paranasal aching must be identified in order to treat minor infections before they become major ones and identify relatively minor causes of obstruction (hay fever) from major ones (neoplasms of the nasal turbinates, septum, sinus, or nasopharynx).

Headache may come from various sources in the nasal cavity, sinuses, or ears. Sources of pain referral are indicated in Figures 128.6 through 128.8.

### Reference

Ballenger JJ. Diseases of the nose, throat, ear, head and neck. 13th ed. Philadelphia: Lea and Febiger, 1985.